

CLAIM AMENDMENTS

Sub C1  
1. (Currently Amended) A method comprising:  
providing error data that indicate motion in an image;  
representing error data as a collection of ordered bits; and  
coding the bits of each order to indicate zerotree roots that are associated with the order;

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performing wavelet transformations on said image with error data to provide wavelet coefficients for a wavelet transformed error image; and  
in a single pass, embedding zerotree coding of the wavelet transformed error image while encoding insignificant wavelet coefficients in the course of initial passes.

2. (Original) The method of claim 1, wherein the act of coding the bits comprises:  
determining which of the bits indicate zeros; and  
classifying each zero as either an isolated zero or a zerotree root.

3. (Original) The method of claim 2, wherein some of the error data are descendants of some of the other error data, and wherein the act of determining comprises:  
traversing a descendant tree from a bit associated with one of said some of the error data to bits associated with said other error data to locate the zerotree roots.

4. (Original) The method of claim 1 wherein providing error data includes taking the difference between two successive image representations in an image sequence.

5. (Original) The method of claim 4 wherein taking the difference includes taking the difference of two successive discrete wavelet transform coded frames.

6. (Original) The method of claim 1 including coding said bits based on whether or not the data exceeds a predetermined threshold value.

Application No. 09/723,123

Supplemental Response to Amendment dated November 3, 2003

Reply to Office Action of October 10, 2003

7. (Currently Amended) An article comprising a storage medium readable by a processor-based system, the storage medium storing instructions to enable a processor to:
- provide error data that indicate motion in an image;
  - represent error data as a collection of ordered bits;
  - code the bits of each order to indicate zerotree roots that are associated with the order;
  - perform wavelet transformation on said image with error data to provide wavelet coefficients for a wavelet transformed error image; and
- in a single pass, [[embedding]] embed zerotree coding of the wavelet transformed error image while encoding insignificant wavelet coefficients in the course of initial passes.
8. (Previously Amended) The article of claim 7, the storage medium comprising instructions to enable the processor to:
- determine which of the bits indicate zeros; and
  - classify each zero as either an isolated zero or a zerotree root.
9. (Original) The article of claim 8 wherein some of the error signals are descendants of some of the other error signals, the storage medium comprising instructions to enable the processor to:
- traverse a descendant tree from a bit associated with one of said some of the error data to bits associated with said other error data to locate the zerotree roots.
10. (Original) The article of claim 7 wherein the storage medium comprising instructions to enable the processor to provide error data by taking the difference between the successive image representations in an image sequence.

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11. (Original) The article of claim 10, the storage medium comprising instructions to enable the processor to take the difference of two successive discrete wavelet transform coded frames.

12. (Original) The article of claim 7, the storage medium comprising instructions to enable the processor to code the bits based on whether or not the data exceeds a predetermined threshold.

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13. (Currently Amended) A system comprising:  
a device to generate error frames by differencing two successive frames and to represent the error frames as a collection of ordered bits; and  
an element to code the bits of each order to indicate zerotree roots that are associated with the order, perform wavelet transformation on said image with error data to provide wavelet coefficients for a wavelet transformed error image, and [[:]] in a single pass, [[embedding]] embed zerotree coding of the wavelet transformed error image while encoding insignificant wavelet coefficients in the course of initial passes.

14. (Original) The system of claim 13 wherein said device includes a processor and a storage medium storing instructions to enable the processor to provide error data that indicate motion in the image, represent the error data as a collection of ordered bits, and encode the bits of each order to indicate zerotree roots that are associated with the order.

15. (Original) The system of claim 13 wherein said device codes said bits based on whether or not the data exceeds a predetermined threshold value.